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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,167

12/28/2005

Mohammed Ali

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MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833

EXAMINER

FREEDMAN, LAURA

ART UNIT

PAPER NUMBER

3616

NOTIFICATION DATE

DELIVERY MODE

06/22/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketing@milesstockbridge.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/527,167	<b>Applicant(s)</b> ALI ET AL.	
	<b>Examiner</b> Laura Freedman	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27,30,31,35,37-39 and 41-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27,30,31,35,37-39 and 41-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 April 2009, in which claims 27, 30, 31, and 43 were amended, claims 28, 29, 32-34, 36, and 40 were cancelled, and claims 53-57 were added, has been entered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the clamping apparatus for an adjustable steering column, and associated details, must be shown or the feature(s) canceled from the claim(s). The drawings show plates of the clamping apparatus, but the drawings do not show any other details, such as how these plates fit together, how they are connected to an adjustable steering column, or how a build-up of sheared material is formed between the clamping surfaces in the event of a collision. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures

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must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27, 30, 31, 35, 37-39, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzelt et al. (US 6,039,350) in view of Matsumiya (US 2003/0025315 A1). Patzelt et al. disclose a clamping apparatus (for example, including #4') able to be used with an adjustable steering column (for example, including #1') able to be used in a vehicle, the clamping apparatus including:

- Plurality of first plates (for example, including left and right cheeks #19') having first clamping surfaces (for example, including surfaces of cheeks #19' that contact left and right legs of flange #10')
- Plurality of second plates (for example, including left and right legs of flange #10') having second clamping surfaces (for example, including surfaces of legs of flange #10' that

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contact cheeks #19'), and slidable relative to the first plates (for example, including slidable during reach and rake adjustments, as well as during a collision event)

- Each first clamping surface contacts an adjacent second clamping surface (for example, as can be seen in figure 2a).

Patzelt et al. do not specifically disclose the materials and hardnesses of the plates of the clamping apparatus. Matsumiya teaches a clamping apparatus (for example, as can be seen in various embodiments throughout the drawings) able to be used with an adjustable steering column (for example, including #1) able to be used in a vehicle, the clamping apparatus including plates (for example, including #2, 4, 8, 9) having clamping surfaces (for example, including surfaces of plates #2, 4, 8, 9 that contact each other), one plate (for example, including #2, 8, 9) used in connection with reach adjustment of the steering column, and one plate (for example, including #4, 9) used in connection with rake adjustment of the steering column, wherein plates can be made of steel or aluminum (including paragraphs 0032, 0037, 0038; steel and aluminum having different hardnesses). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plates of the clamping apparatus of Patzelt et al. so as to be made of steel and aluminum, as claimed, and as taught by Matsumiya, so as to obtain the desired friction, cost, and weight characteristics of the clamping apparatus (Matsumiya: including paragraphs 0016, 0017, 0031-0033, 0036-0038, 0040, 0044-0045). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Further, applying a known technique to improve similar devices in the same way, or to a known device ready for improvement, would yield predictable results

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5. Claims 43-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzelt et al. (US 6,039,350) in view of Lane et al. (US 5,823,570). Patzelt et al. disclose a clamping apparatus (for example, including #4') able to be used with an adjustable steering column (for example, including #1') able to be used in a vehicle, the clamping apparatus comprising:

- At least two substantially flat plates (for example, including reach adjustment plate, which is substantially flat left or right cheek #19', and rake adjustment plate, which is substantially flat left or right leg of flange #10') that can be clamped to one another (for example, as can be seen in figure 2a)
- The plates having clamping surfaces (for example, including surfaces of plates that contact each other) that slide relative to one another in a collision (for example, based on the fixed attachment of #10' to the vehicle, and the fixed attachment of #19' to the movable telescopic section #2', the plates would slide relative to one another in the event of a forward collision with the steering wheel and/or a rearward collision with the engine compartment, firewall, or instrument panel)
- The substantially flat plates include a plurality of first plates (for example, including left and right cheeks #19') and a plurality of second plates (for example, including left and right legs of flange #10')
- Each first plate can be clamped to a respective second plate (for example, including left cheek #19' clamped to respective left leg of flange #10', and right cheek #19' clamped to respective right leg of flange #10').

Patzelt et al. do not specifically disclose the respective clamping surfaces being made of materials of different hardnesses such that, during the relative sliding of the clamping surfaces in a collision, the material of lower hardness is sheared by the material of higher hardness and a build-up of the sheared material is formed between the clamping surfaces so as to increase a

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clamping load, wherein one plate is made of mild steel and the other plate is made of mild aluminum or aluminum alloy. Lane et al. teach a clamping apparatus comprising at least two plates (for example, including #78, 94) that can be clamped to one another (for example, as can be seen in figures 2, 3), the plates having clamping surfaces (for example, including surfaces of plates that contact each other) that slide relative to one another in a collision (including bottom of column 6-column 8), the respective clamping surfaces being made of materials of different hardnesses such that, during the relative sliding of the clamping surfaces in a collision, the material of lower hardness is sheared by the material of higher hardness (including bottom of column 6-column 8) and a build-up of the sheared material is formed between the clamping surfaces so as to increase a clamping load (for example, a buildup would be formed as shearing occurs), wherein one of the two plates is made of mild steel (including bottom of column 4) and the other of the two plates is made of mild aluminum or aluminum alloy (including bottom of column 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plates of the clamping apparatus of Patzelt et al. so as to be made of steel and aluminum, as claimed, and as taught by Lane et al., so as to provide sufficient energy absorption in a collision situation (Lane et al.: throughout specification). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Further, applying a known technique to improve similar devices in the same way, or to a known device ready for improvement, would yield predictable results.

### ***Response to Arguments***

6. Applicant's arguments with respect to claim 27 have been considered but are moot in view of the new ground(s) of rejection.

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7. Applicant's arguments filed 13 April 2009, with respect to claim 43, have been fully considered but they are not persuasive. In regards to Patzelt et al. ('350), first and second plates (for example, first plates including left and right cheeks #19', and second plates including left and right legs of flange #10') are substantially flat, in that they have a substantially horizontal surface with substantially no curvature or tilt, particularly the surfaces that interact with each other in the clamping apparatus (can be seen in figure 2a). In regards to Lane et al. ('570), while the cutting element (#100) of cutter (#94) may be the component that actually shears the surface of spool sleeve (#78), the cutting element is a part of the cutter, and the entire cutter contributes to the teaching that a material of higher hardness can shear a material of lower hardness for energy absorption during a collision. Further, the cutter is still a substantially flat plate, even with a small protrusion of the cutting element, since 'substantially' applies to components that mostly adhere to a specific limitation, but may not entirely adhere to that limitation.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Danielsson, Gaukel, Johr, and Klukowski et al. disclose a clamping apparatus for an adjustable steering column, the clamping apparatus comprising a plurality of substantially flat reach and rake adjustment plates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Freedman whose telephone number is (571) 272-2442. The examiner can normally be reached on Monday-Friday, 9:30am-6:00pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-7742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GLENN DAYOAN/  
Supervisory Patent Examiner, Art Unit 3612

Laura Freedman  
Examiner  
Art Unit 3616